THOUGHTS ON THE FUTURE OF MEDICINE*

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PRESIDENT Payne, Fellows of the Academy, ladies and gentlemen. First let me thank you for the privilege of fellowship in the academy. It has a proud, 141 year history and this beautiful building and your incomparable library have always been treasures of New York medicine's heritage to me. I gave the first scientific presentation of my research life in this splendid auditorium 36 years ago, and I have fond memories of how well I was received on that occasion. It is nice to be back.

Second, it is a particular pleasure to address this group during Mary Ann Payne's presidency. Mary Ann was one of my elegant young clinical teachers when I was a frightened Cornell medical student, and much of what I know about the liver derives from her. So it gives me the opportunity to acknowledge my personal as well as our collective debt to her for her fine work over many years and particularly for all of her efforts here during her presidency.

Tonight I shall indulge in a bit of futurology and try to tell you what I feel is coming down the pike for American medicine. We are in a period of major change in medicine—probably a period of faster and more wrenching change than has ever occurred before.

To my sorrow, the major engine now driving change is the almost universal American perception that medical care is too expensive. Worries about cost now outweigh all others—access to care, its quality, or its equitable distribution, to name but three—these problems are now on the back burner in the minds of most. Concern about dollars is prompting rapid and major alterations in how medical care is organized, financed, and delivered. Those changes have been dominated by economics—not issues of equity or effectiveness or quality. When this is coupled with a society in flux, a frightening

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epidemic of serious sociomedical problems such as intravenous drug abuse, suicides, homicide, unwanted pregnancies among teenagers, too many low birth weight babies, the specter of a new and fatal disease—AIDS—which is killing young people in accelerating numbers, and an aging population with mounting problems of chronic illness for which we have no final or curative answers, physicians and medicine are, I believe, in for some very swiftly moving times.

Let me indicate some of the forces now at play which I feel will have a major impact on how physicians of the future deliver care to their fellow Americans. Here's my list: changes in the way we pay hospitals and physicians; a growing surplus of hospital beds; a probable surplus of physicians; the development of new technologies which will permit the treatment of many more serious illnesses on an out-of-hospital basis; a rapid increase in both the number and variety of ambulatory care centers; continuing competition from for-profit health enterprises and chains; AIDS and HIV related illnesses; and increasing problems in financing and providing care for the poor.

Let me expand briefly on each of these.

Changes in the way we pay hospitals and physicians. Today only about one third of our health care expenditures are paid directly out-of-pocket. The remaining two thirds are paid by private health insurance companies and government health care programs such as Medicaid and Medicare. Historically, the design of health insurance programs has accommodated itself to the central role of the physician. It has separated his payment from that of the hospital, and the doctor has been largely left alone. However, today, insurers—public and private—have begun seriously to question the physician's judgment and to look over his shoulder to determine what they, as payers, might regard as excessive or unnecessary hospital or medical care expenditures. For the first time hospitals are trying to compete with each other on the basis of price, not cost, and that this is affecting physician behavior is clear. Virtually all new arrangements contain major financial incentives for both physician and patient to avoid expensive hospital admission and to play games with the use of new technologies.

The growing surplus of hospital beds. Hospitals have traditionally been the core institutional providers of health care in the United States. Yet as hospital costs continue to rise, they are becoming more and more vulnerable to competition from less expensive and more convenient modes of rendering health care. Much like urban department stores, which now face major competition from alternative retailing operations such as discount houses and direct mail,

hospitals now face significant competitive threats from health maintenance organizations, ambulatory surgical centers, urgee centers, primary care centers, skilled nursing homes, and, ironically, their own medical staffs. Since the early 1980s there has been a very significant decline in the number of hospital admissions. The relentless advance of AIDS may change this, particularly in large cities. New York City, which has, with enormous blood letting, closed more than 2,000 beds in recent years, is now struggling desperately to reopen at least 500 beds immediately, and clearly many more than that will soon be needed. But this will vary widely by city and by region.

A potential surplus of physicians. Although this is now being argued again, most people tend to accept the view of the Graduate Medical Educational National Advisory Committee—the GMENAC report—that we are overproducing doctors. That report estimated that by 1990 the nation would have approximately 70,000 more physicians than the nation will need. While the fit between projected supply and projected needs varies considerably according to the specialty, most surgical and medical subspecialties are projected to produce nearly double the number of specialists needed by 1990. Further, it should be recognized that this surplus of physicians will occur at precisely the time when hospital admissions are falling. Thus, there may be as many as one quarter to one third fewer patients hospitalized for each active physician. Since most physicians other than pediatricians earn about half their income from hospital practice, this will obviously enormously impact on both the financial condition and attitudes of doctors, particularly recent graduates who will emerge from training with much greater debts than ever before.

New technologies which permit the treatment of more serious illnesses on an outpatient basis. Clearly, the next decade will usher in many new medical technologies that will have a profound impact on health care delivery by reducing the need to hospitalize sick patients. Less invasive surgical techniques, new diagnostic imaging technologies, new drugs, improved home care services, and the like will aid and abet the flight from the hospital. All physicians are taking care of much sicker patients outside the hospital today than in the past, and this trend will continue.

The rapid increase in ambulatory care centers. Experts in futurology now project a five to tenfold increase in the number of freestanding ambulatory care centers during the next decade. These will not be just primary care centers that have grown apace in recent years. Often they will be highly specialized "urgee" centers, or surgicenters, or renal dialysis units, or emergency centers. Because surgical procedures represent approximately 45% of the average hospital's inpatient days, the growth of free-standing ambulatory

surgical centers or day surgery programs poses a particular threat to hospitals. Again, these developments will place hospitals in competition with their own medical staffs for patients.

Growing competition from for-profit enterprises and chains. Today the for-profits represent only a small share of the nation's community hospital capacity—about 12% of hospitals and 10% of beds. While most experts believe they are not likely to become the dominant mode of ownership in the hospital field within this century, they do represent a significant new force.

It is my belief that over the next decade the real growth in proprietary chain activity may be in the provision of alternatives to inpatient hospital care. Here they will actively compete with nonprofit hospitals and volunteer community organizations in establishing a myriad of nonhospital health care arrangements.

And here we should have some concerns. Unless we change the ground rules for public support of care, it seems probable that the groups most threatened by the for-profit developments and by changes in public policy will be the poor and low- and moderate-income families—most with children. Those low-income families will have difficulties paying the costs, albeit lower costs, of alternative out-of-hospital services unless we dramatically change insurance ground rules. This economic reality is likely to lead both proprietary chains and nonprofit hospitals to seek more income by establishing those new out-of-hospital services only in more affluent communities, leaving "someone else" to deal with the less fortunate.

AIDS and HIV related illnesses. As all of you know all too well, AIDS is now creating some monstrous, heart rending problems. New York is the epicenter. Even if we magically arrest infection of new hosts as of this evening, our problems with AIDS and caring for people with the disease will become much worse in the foreseeable future. Although infection may have plateaued in homosexual men, its rapid and continuing march through the intravenous drug abusing community is gloomy to behold. Thus, it is increasingly a disease of the poor, blacks, Hispanics, and, alas, their children.

We are not handling it well, and it is creating great fears and great tensions which threaten to tear our society apart. The disease spotlights and magnifies many of the ills of our society as well as killing too many young people. It threatens to overwhelm our resources of health care in certain areas of the country, and its management will compete mightily for scarce health dollars, particularly for care of the have-nots in our society.

Providing care for the poor will become a more difficult issue in the 1980s. Last, and this problem logically follows on those preceeding it, lack of health insurance for too many reduced public support for health programs for the

poor, and a persistently high proportion of people and most particularly of children in poverty will create increasingly serious problems. As price competition between hospitals grows more intense, it seems probable that this will force many voluntary hospitals to abandon their "free-care" roles.

So there is my list. It is a very different scene from 10 years ago. As with any major transformations in American life, some of the forces that I have outlined can be used to create something better for sick people. But they obviously have, as well, the potential for mischief. A more competitive, less hospital-oriented system with many more physicians could lead to more accessible, higher-quality, and less costly health services for the citizens of this country. A surplus of physicians may permit us to try some new experiments in how to deliver care more graciously and inexpensively—it might even resurrect home visits!

On the other hand, these profound changes could lead to certain misfires which we need to consider. As examples: Will these new rapidly-growing competitive alternatives to hospital care be made available to all communities or just to upper-income areas? If there is indeed to be a surplus of hospital beds and physicians, will the more competitive system reduce health care costs, or will these surpluses paradoxically escalate costs as physicians and institutions provide unnecessary health services and technologies to patients as a way to sustain their own financial well being? If indeed out-of-hospital care is the wave of the future, what will we do with our current educational system of clinical training for young physicians which is so heavily hospital focused? If these changes are to occur, who will treat the poor or those with multiple health and social problems? Will institutions focusing on these groups disappear because they are noncompetitive?

Those, then, are the forces that I see at play.

THE FUTURE OF MEDICAL PRACTICE

So now let me turn back to the general scene. What do I see occurring in the practice of medicine during the rest of this decade?

First, and readily apparent from what I have outlined, I see an increasing trend toward out-of-hospital care in which the hospital plays an important but no longer central role.

Second, I believe the pressures stemming from an increased supply of physicians will encourage younger members of the profession to establish practices in many areas traditionally considered undesirable, although, unless we change the reimbursement ground rules, probably not in very low-income areas. Those same pressures may encourage more physicians into specialty areas which until recently were seen as less attractive, such as public health,

or geriatrics, or occupational medicine. It seems similarly clear that it will also propel young physicians into group types of medical practice arrangements in HMOs, salaried practices, or new health care conglomerates. All these I view as potentially positive.

I shall not spell out all of the potential negative ramifications of these changes on the practice of medicine except to ask that you consider one potential resultant which worries me particularly.

This is the increasing corporationization and commercialization of medicine. I think that this has serious negative implications for the future of medicine. Here we run the hazard of developing two kinds of physicians with quite different mind sets and values.

On the one hand, I see entrepreneurial groups of physicians who will increasingly regard the practice of medicine as a proper and profitable business enterprise. They will move aggressively to establish large corporate health care establishments. They will personally hold a financial stake in their own enterprises, develop and emphasize profitable services and high technologies and eliminate those which are not. The bottom line will be income and financially attractive growth.

On the other hand, I see physicians with more socially oriented goals and values paradoxically going a similar "corporate" but more dependent route. Because the development of new practices will be so expensive, competition for patients so intense, chances of failure so high, and debt loads from their training so overwhelming, these physicians will opt to join institutions with quite different objectives, sacrificing their independence for security, predictable hours, and social goals compatible with their own. These young physicians will become salaried employees of HMOs, or groups, or public hospitals, or clinics, will work to make more restrained and discriminating use of technology, and they will worry more about the less fortunate with higher burdens of sociomedical needs.

And these two groups of physicians may, I predict, get increasingly angry with one another. They may find less and less in common, talk past each other, and the dialogue could become increasingly confrontational—all to the profound detriment of physicians, patients, and the broader society.

Obviously, these possibilities worry me profoundly, but I am basically an optimist, and let me try to close my birthday remarks on a more upbeat note. What of the longer view?

While Americans may be in for some tough times in how well medicine serves their needs at present, over the longer haul I think medicine's powerful healing role—both social and technological—will continue.

It is my fond hope that within the decade all of the organizational, structural, and governmental changes in medicine now underway will successfully reduce the rate of rise of medical care costs to levels considered acceptable by most Americans. As this takes place, I believe public priorities will once again shift to those areas where medicine plays its most effective role. Thus, national concerns will return to promoting more and better biomedical science, developing better methods to bring modern medical health care to all Americans, and improving the quality of that care.

Second, I hope that the striking changes in how and where medicine is practiced will lead it to once again become much more responsive to the needs and wishes of patients, and this should soften some of the harshness of technology oriented medicine. Further, with the patient again the central figure in the whole complex business of medicine, the role of the generalist physician should be more firmly reestablished.

Third, I would predict that physicians will have a greater focus on disease prevention, on health promotion, and that they will look more carefully at the social and behavioral factors which probably underlie most of the illnesses we treat, and make efforts to modify those factors a higher priority.

Fourth, and obviously offering the greatest hopes for the future welfare of society, is the remarkable potential of new biologic science. Spectacular advances in molecular biology, genetic engineering, immunology, transplantation, and new designer drugs offer enormous promise for improving medicine and therapy and the management of human disease and illness in the future. Thus, the diseases of enormous human cost today such as genetic illnesses or arteriosclerosis, cancers of many forms, and of course AIDS may come under control.

But I want to close with a plea that I hope will have meaning to you who are members of this Academy. If medicine is to continue to be held in high regard, society needs new and unequivocal evidence that the physician's concerns are for them, as the recipients of care, not economics, not competition, not the professions' self-interests.

We need, *as a profession—as physicians*—to agree that no American, irrespective of location, or income, or culture, or age, or sexual orientation, or kind of illness, should now go without needed medical care. Somewhere between 35 to 37 million Americans are underdoctored. This includes some elderly, some racial groups, migrants, drug abusers, the unemployed, the uninsured, the homeless, and, alas, many too many children!

As we move toward a physician surplus we should view it as unconscionable that any American in need of care should go without it. That we might

trade extra physician capacity for more leisure time for physicians or encourage them to engage in more unassociated business endeavors rather than using their expensive skills to care for those who need it should be totally unacceptable to us.

I believe we violate public trust when we delegate to other segments of our society the role of providing health care for those who are needy or those who tend to be rejected by our society. Obviously, their care is a shared responsibility—health institutions, government, industry, and the profession must all take a hand. But the medical profession should take positive action, at the expense to itself if required, to establish the mechanisms and the programs required to provide every person in our nation with needed personal health services.

So it is my fond hope that you who are leaders in medicine in New York will decide to take on this tough advocacy role. I think a clear position which champions and fights for the health care of all Americans might soften some of the views of people about physicians who today are too often regarded as cold and selfish and making too much money.

I think that over the long haul our society will be judged by how well we care for those who are less fortunate. I believe your considerable power could be put to splendid use by insisting—loudly and often—that good medical care is absolutely vital if we aspire to an increasingly healthy society of tomorrow. It would serve medicine and the nation well.

Commitment to some of these quite simple touchstones could, I believe, keep doctoring a proud, reasonably independent, and deeply satisfying professional occupation.

It is, I believe, a fact that the creative, the moral, the humanistic, and the socially responsible things we do outlast the selfish or the expedient.

Physicians with ideas, imagination, and high goals have existed in our past. They are here today. They will be there in our future. Americans deserve good medical care, and the medical profession can monitor the needs of those who have the toughest time getting it. We need good doctors, we need caring ones, and we need to reaffirm the altruistic purposes of our profession.

Over time I think that our society tends to reward groups that aspire to noble goals like improving the human condition. Those goals have characterized the careers of many of you who are members of the Academy. The Latin inscription over our entrance states, "There is an occasion for adding something." We need to do so now.